

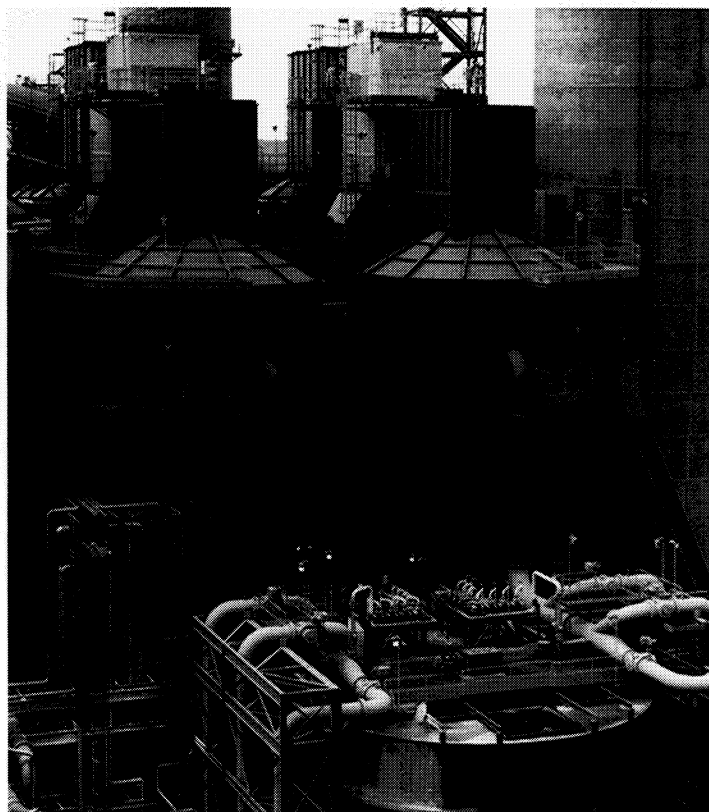
Two areas of the Texas utility pictured were test-coated with SuperSpan® RM 8000, an anti-corrosion coating specifically designed to meet a problem widely experienced by the power industry: damage to emissions control systems, or scrubbers, due to corrosion caused by the use of high sulfur content coal. The utility company had previously found it necessary to repair or replace ducting and other parts of the facility every few months. Nine months after SuperSpan RM 8000 was applied, the two test areas were inspected; neither showed any signs of acid degradation, abrasive wear or cracking. At the end of 1985, the coating had been in service for more than three years at the utility without component failures.

SuperSpan RM 8000 was developed by RM Engineered Products, Inc., North Charleston, South Carolina with an assist by the NASA-sponsored New England Research Applications Center (NERAC), one of nine dissemination centers providing search and retrieval services to industry clients.

RM's decision to develop an anti-corrosion coating stemmed from the company's experience as a producer of nonmetallic expansion

joints for utilities and industrial processes. "We were well aware," said RM vice president John Halberda, "of a major problem in the power generating industry: the necessity to shut down plants temporarily to repair or replace carbon steel duct work that had become corroded by the acid gases produced as part of the process of burning coal. What we needed was state-of-the-art information to ensure that the company's research and development did not duplicate existing research and that our efforts would result in a product superior to those already on the market."

RM requested help from NERAC, which conducted customized searches of several data banks, including NASA's, and provided a great many abstracts outlining research pertinent to RM's development; where the basic information proved of particular interest, NERAC followed up with full-scale reports. Of special utility was NASA-developed space technology in areas related to the thermoconductivity of carbon steel and the bonding characteristics



of polymers. NERAC's information confirmed the need for a new compound that would outlast other coatings and reassured RM that its research effort was headed in the right direction. NERAC's searches also identified other groups in the same field and helped RM project a completion date for an early entry into the market.

RM's successful development program resulted in a terpolymer coating—SuperSpan RM 8000—that, the company says, will provide protection to steel

ducts six times longer than epoxy coatings and 38 times longer than polyester/flaked glass coatings. The product has found good market acceptance; sales are already in the multimillions and RM is projecting a \$10-\$15 million increase over the next five years. The success of the initial collaboration with NERAC prompted RM to seek NERAC's assistance on a second coating development, still in R&D status. ▲

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